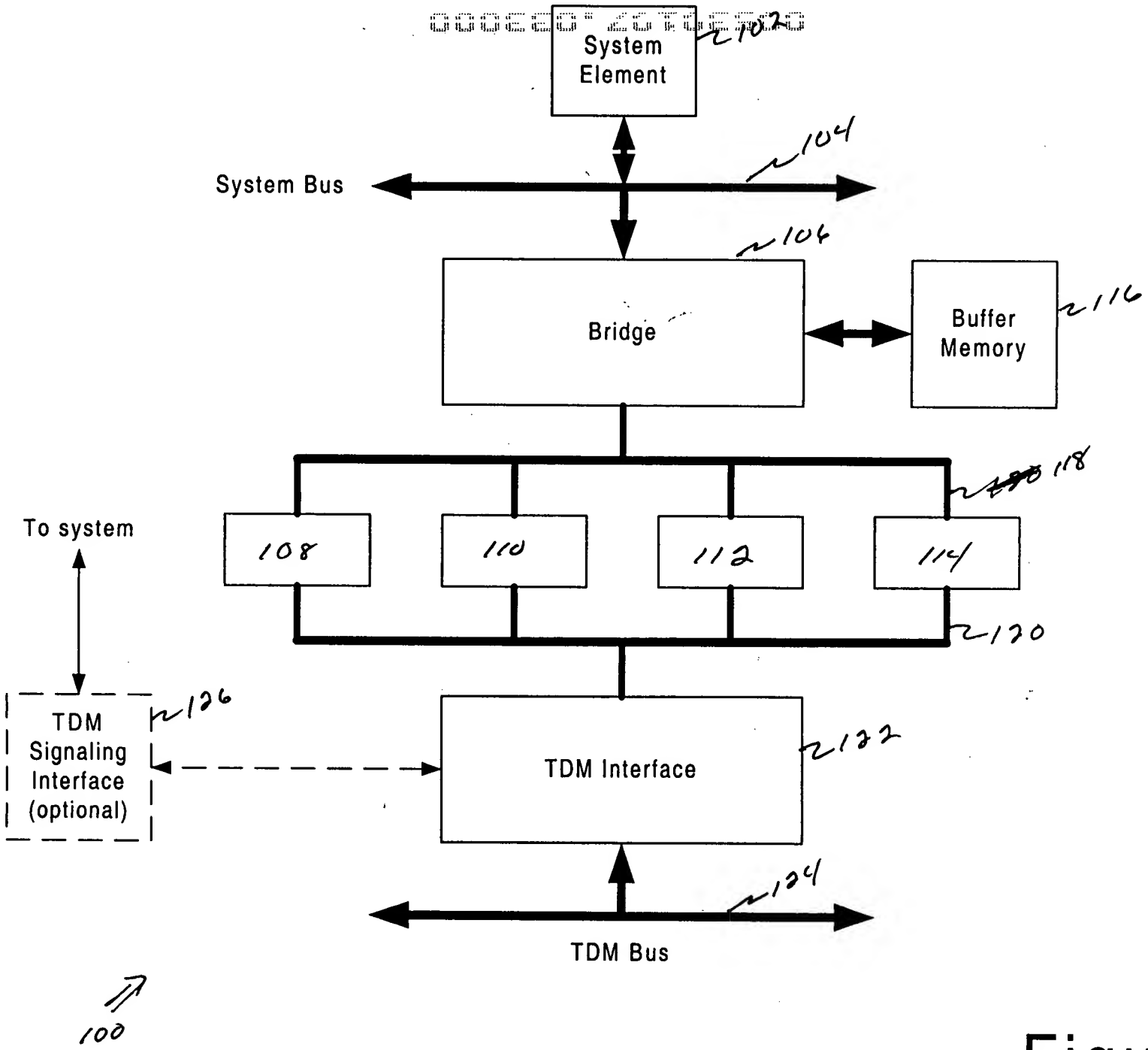
System Element
102
System Bus
104
104
Bridge
Buffer Memory
116
118
To system
108
110
112
114
120
TDM Signaling Interface (optional)
126
TDM Interface
122
124
TDM Bus
100

Figure 1

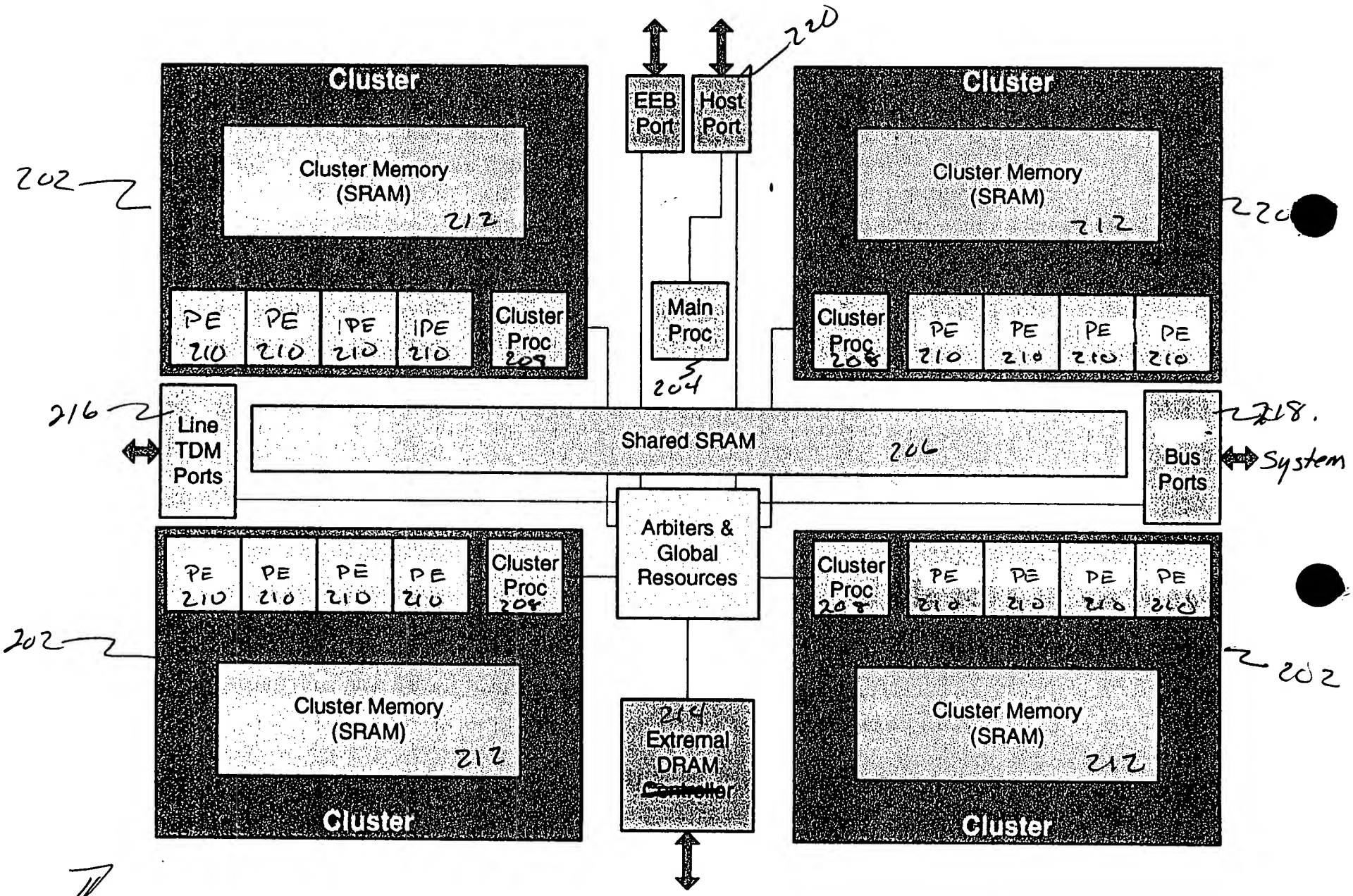
Cluster
Cluster Memory (SRAM)
212
PE 210
PE 210
PE 210
PE 210
Cluster Proc 209
EEB Port
Host Port
220
Main Proc
204
Cluster
Cluster Memory (SRAM)
212
Cluster Proc 208
PE 210
PE 210
PE 210
PE 210
202
216
Line TDM Ports
Shared SRAM
206
218
Bus Ports
System
Arbiters & Global Resources
Cluster
Cluster Memory (SRAM)
212
PE 210
PE 210
PE 210
PE 210
Cluster Proc 208
202
214
External DRAM Controller
Cluster
Cluster Memory (SRAM)
212
PE 210
PE 210
PE 210
PE 210
Cluster Proc 208
202
108

FIGURE 2

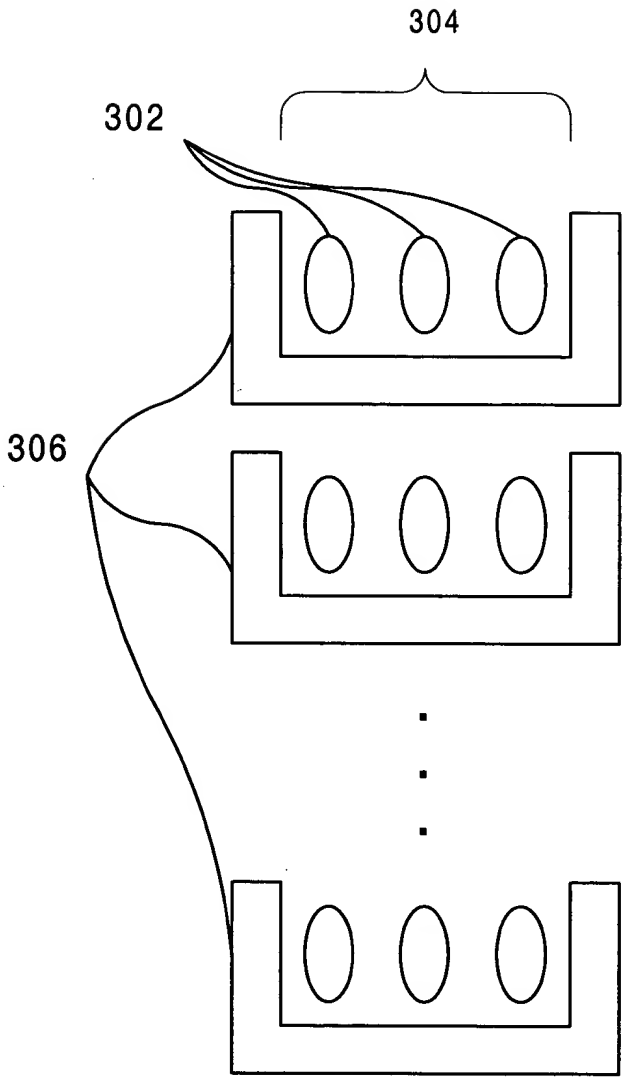

Figure 3

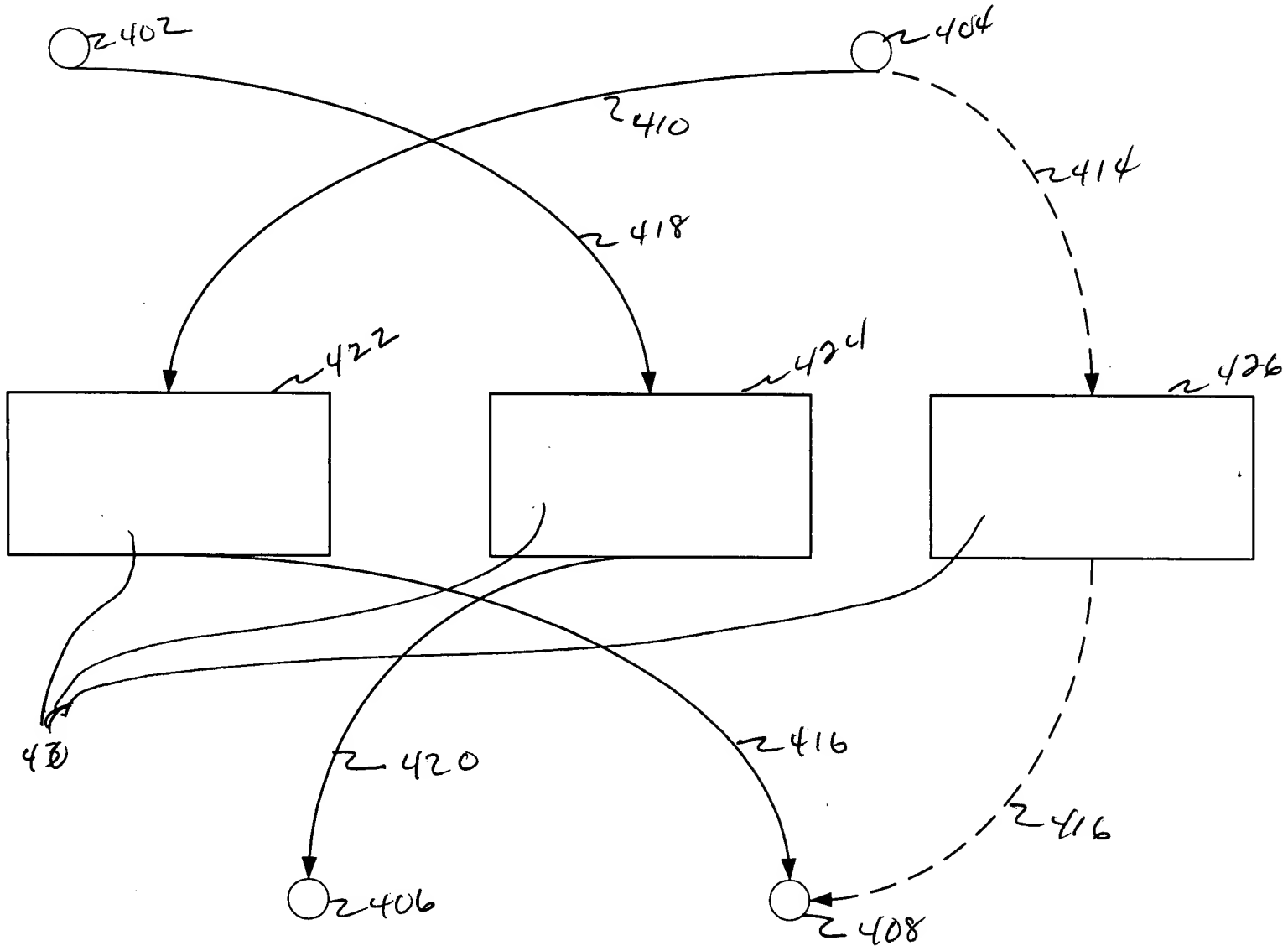

Figure 4

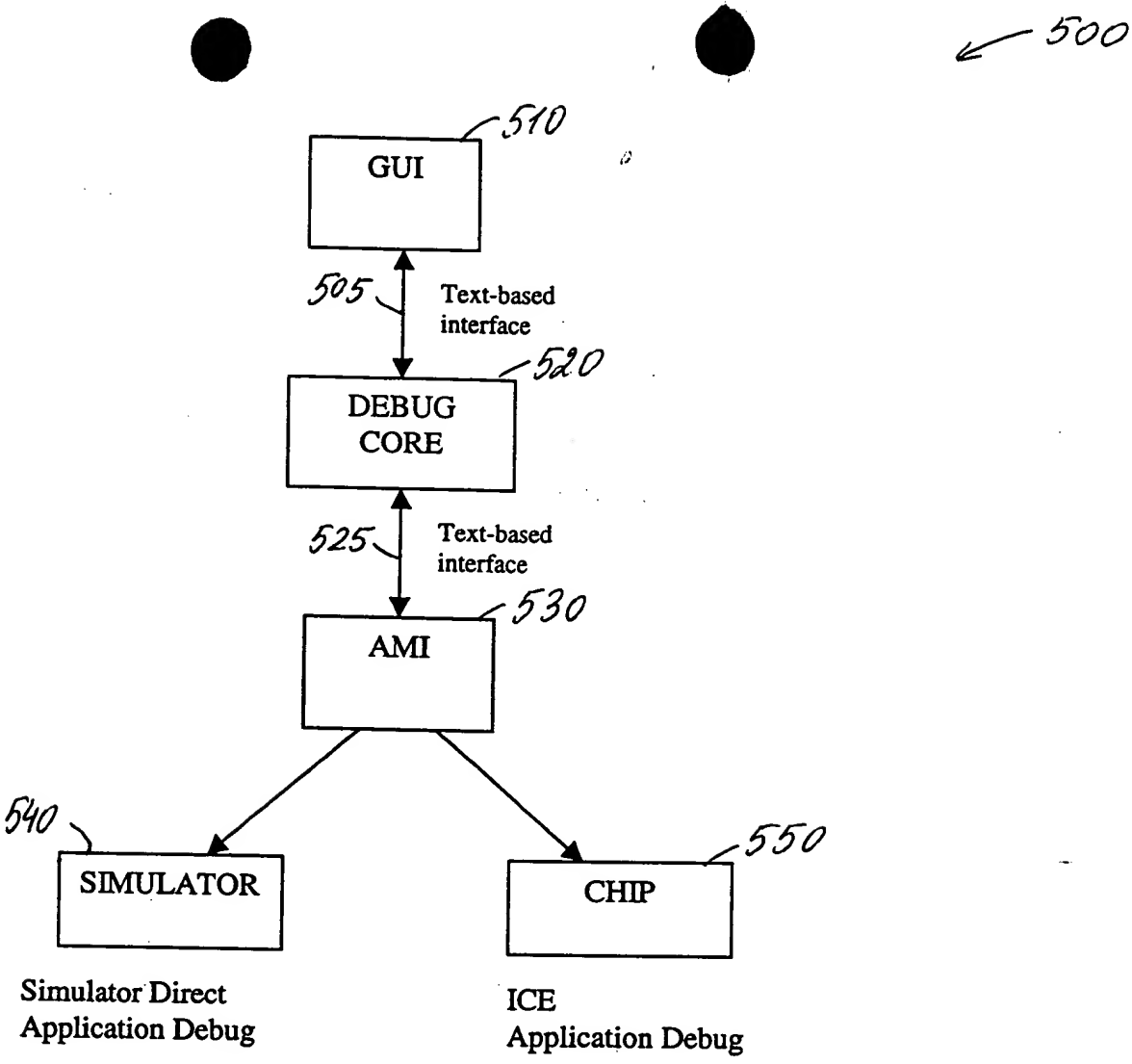

FIGURE 5A

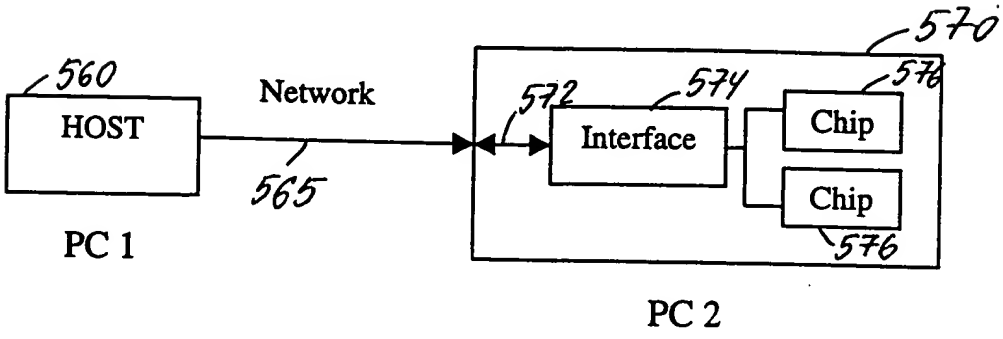

FIGURE 5B

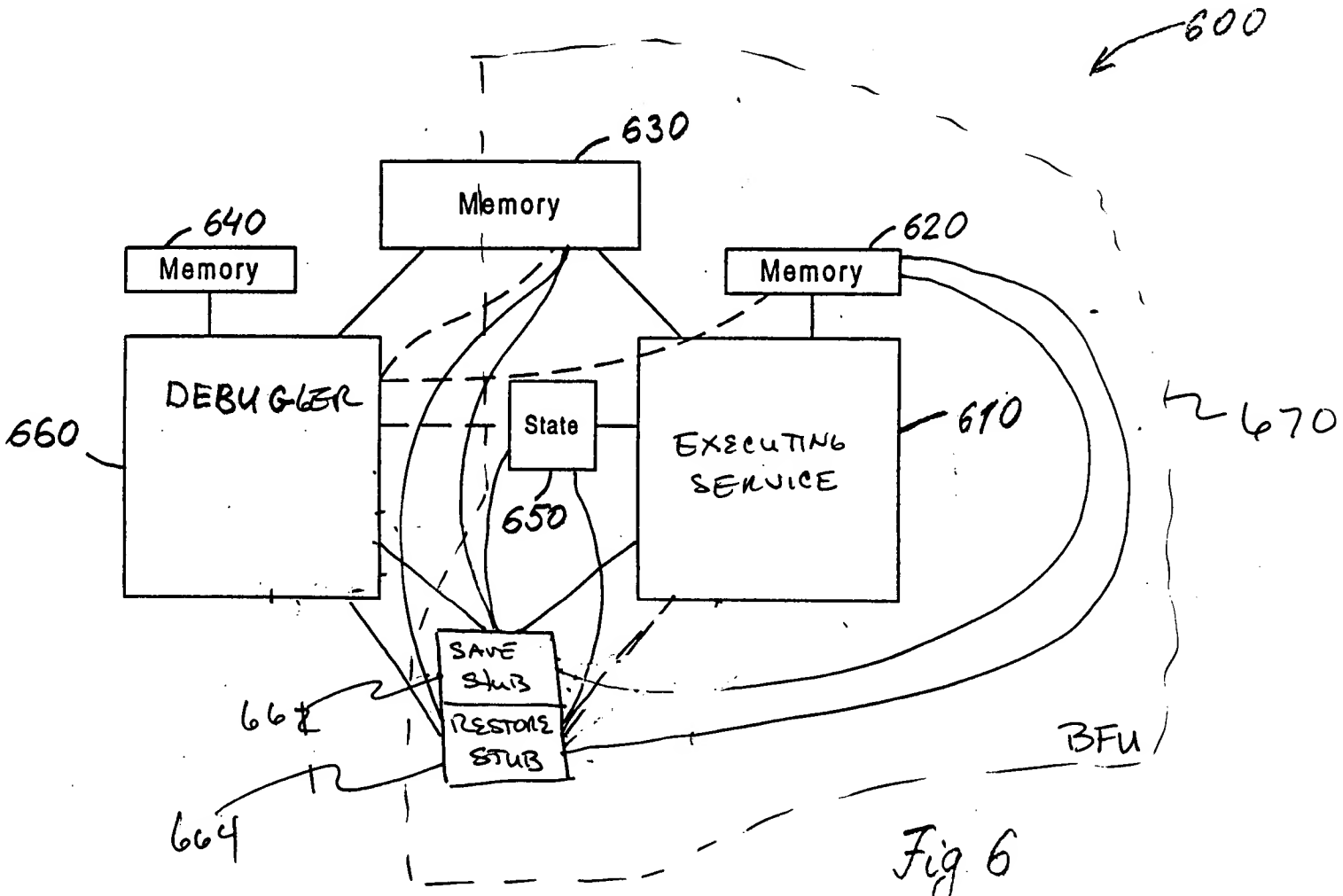
600
630
Memory
640
Memory
620
Memory
DEBUGGER
660
State
650
EXECUTING SERVICE
610
670
SAVE STUB
RESTORE STUB
662
664
BFU

Fig 6

1	ld32 r3, (r1 + 0)
2	ld32 r4, (r1 + 4)
3	ld32 r5, (r1 + 8)
4	add r6, r3, r4

Figure 7

1	ld32 r3, (r1 + 0)
2	ld32 r3, (r1 + 4)
3	ld32 r3, (r1 + 8)
4	ld32 r3, (r1 + 12)
5	st32 (r1 + 0), r3
6	st32 (r1 + 4), r3
7	st32 (r1 + 8), r3
8	st32 (r1 + 12), r3

Figure 8

1	ld32 r3, (r1 + 0)
2	ld32 r4, (r1 + 0)
3	ld32 r5, (r1 + 0)
4	ld32 r6, (r1 + 0)
5	add r7, r5, r6

Figure 9

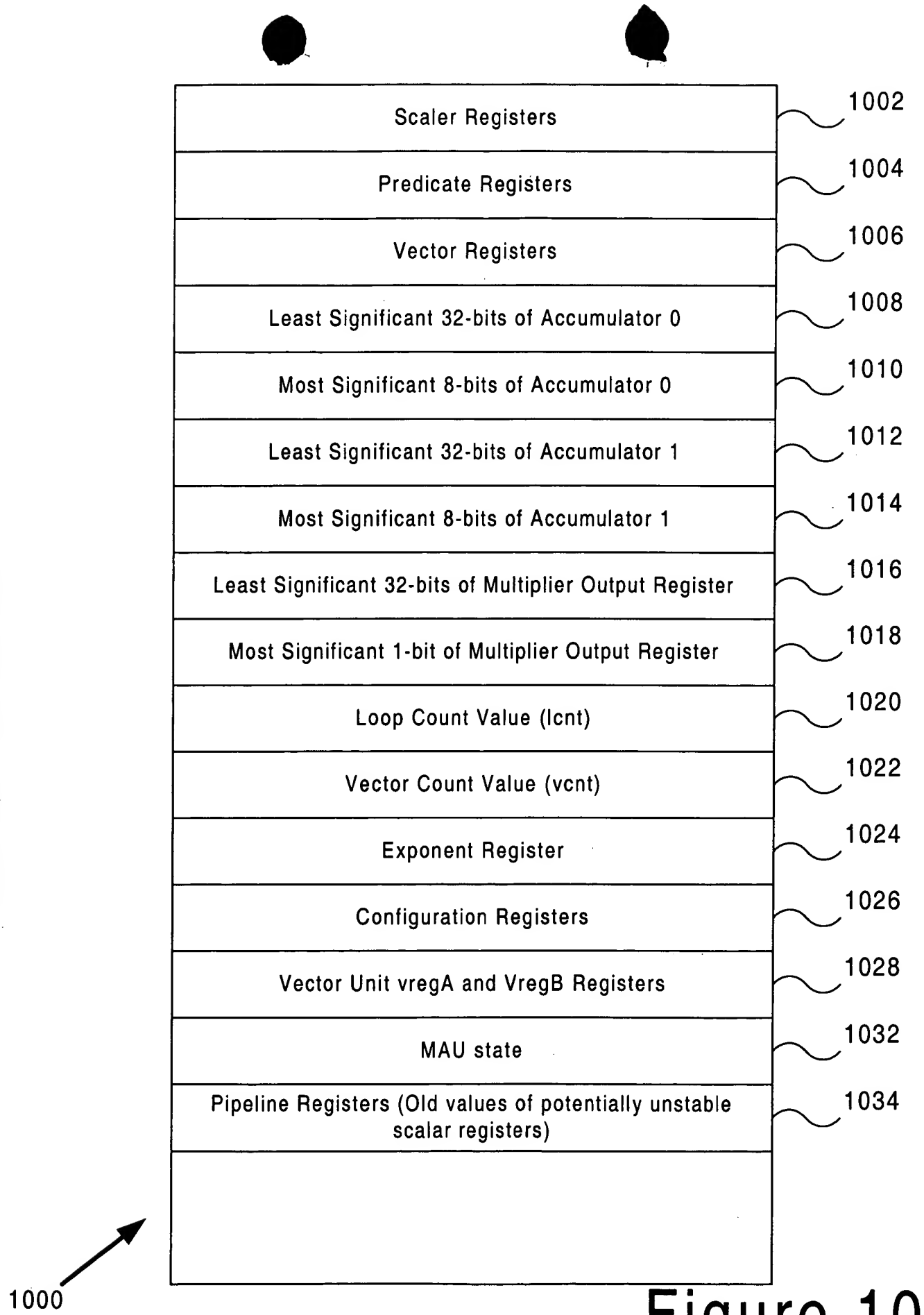
Scaler Registers
1002
Predicate Registers
1004
Vector Registers
1006
Least Significant 32-bits of Accumulator 0
1008
Most Significant 8-bits of Accumulator 0
1010
Least Significant 32-bits of Accumulator 1
1012
Most Significant 8-bits of Accumulator 1
1014
Least Significant 32-bits of Multiplier Output Register
1016
Most Significant 1-bit of Multiplier Output Register
1018
Loop Count Value (lcnt)
1020
Vector Count Value (vcnt)
1022
Exponent Register
1024
Configuration Registers
1026
Vector Unit vregA and VregB Registers
1028
MAU state
1032
Pipeline Registers (Old values of potentially unstable scalar registers)
1034
1000

Figure 10

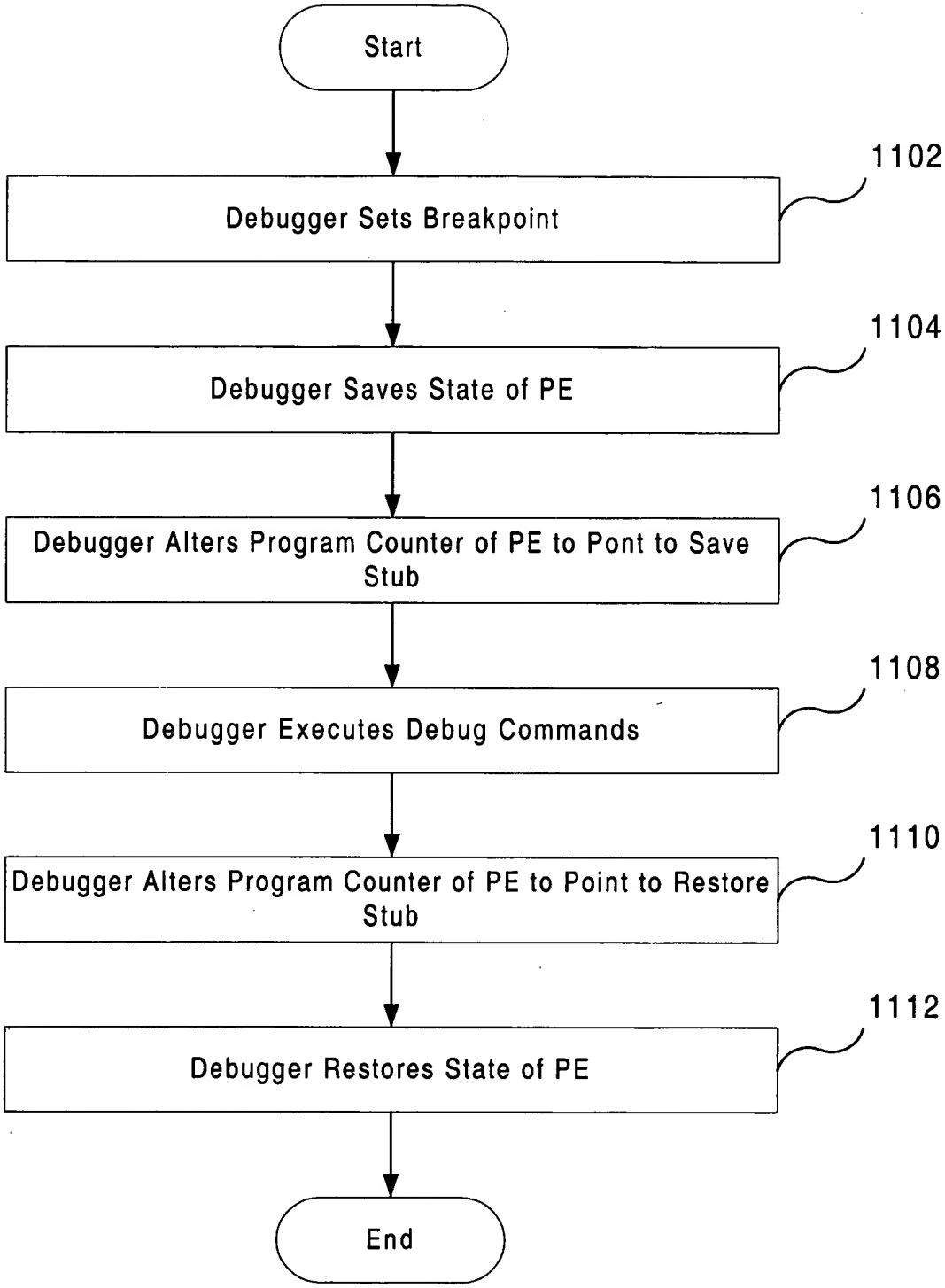
Start
1102
Debugger Sets Breakpoint
1104
Debugger Saves State of PE
1106
Debugger Alters Program Counter of PE to Pont to Save Stub
1108
Debugger Executes Debug Commands
1110
Debugger Alters Program Counter of PE to Point to Restore Stub
1112
Debugger Restores State of PE
End

Figure 11

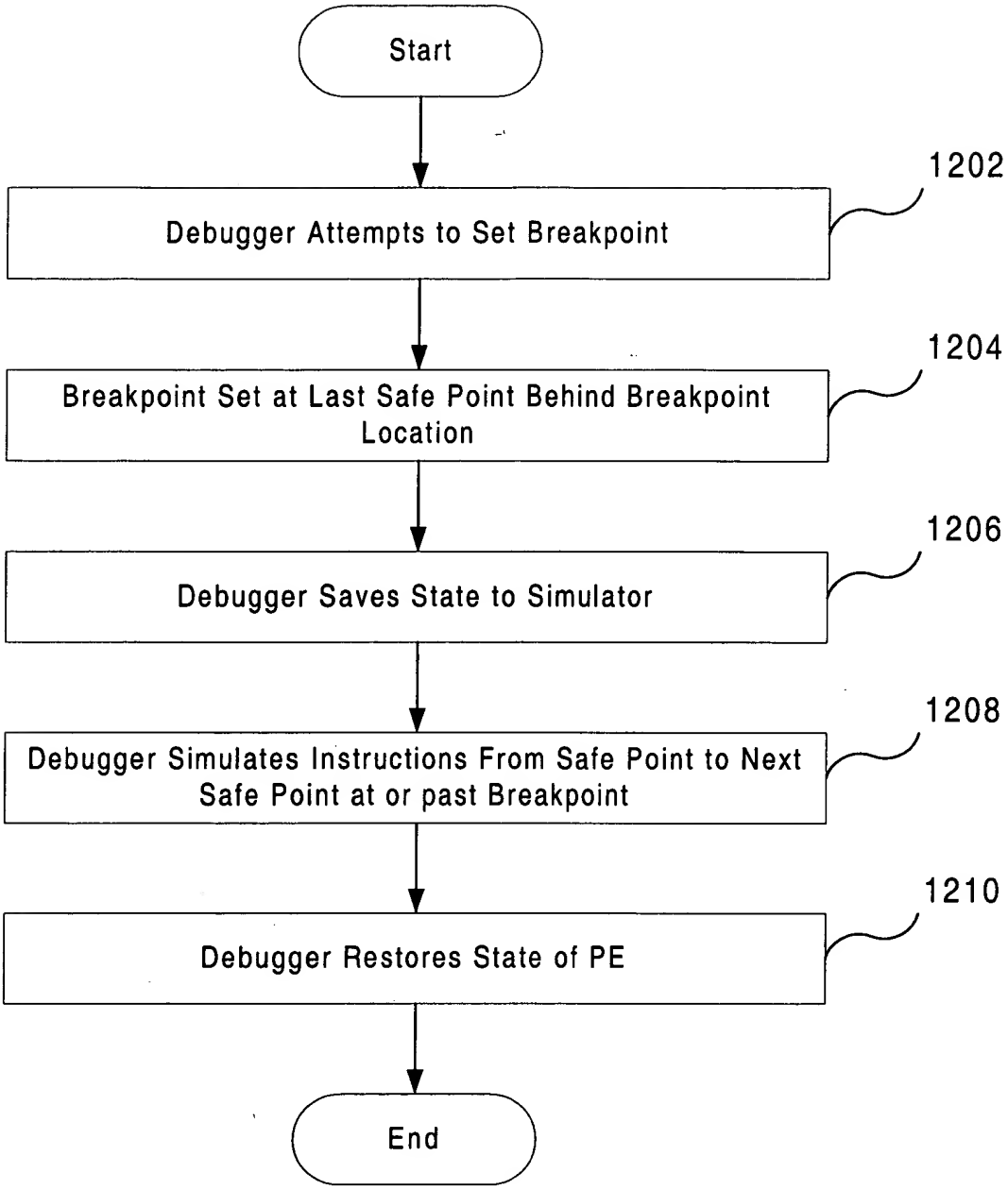
Start
Debugger Attempts to Set Breakpoint
1202
Breakpoint Set at Last Safe Point Behind Breakpoint Location
1204
Debugger Saves State to Simulator
1206
Debugger Simulates Instructions From Safe Point to Next Safe Point at or past Breakpoint
1208
Debugger Restores State of PE
1210
End

Figure 12

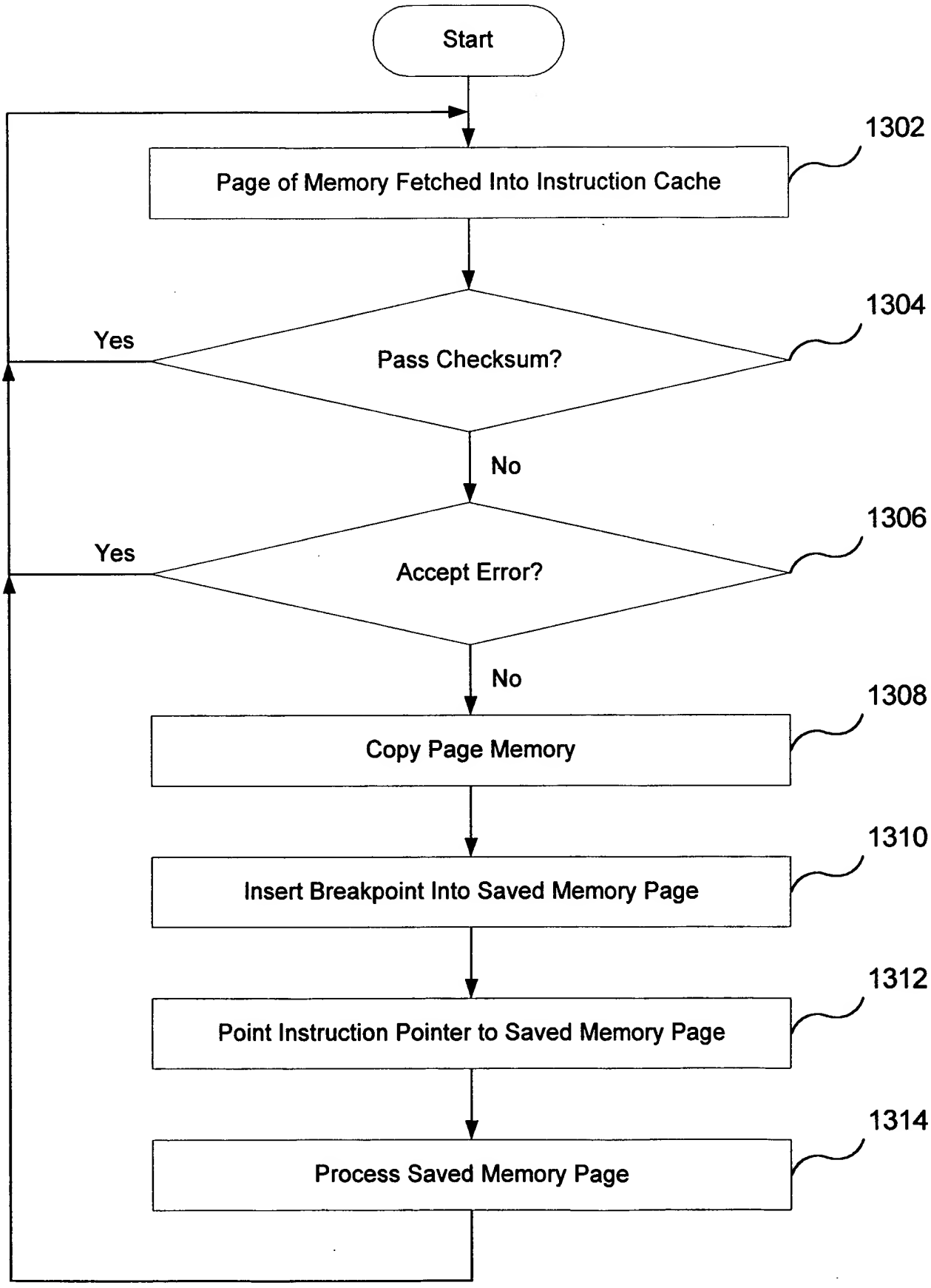
Start
Page of Memory Fetched Into Instruction Cache
1302
Pass Checksum?
1304
Yes
No
Accept Error?
1306
Yes
No
Copy Page Memory
1308
Insert Breakpoint Into Saved Memory Page
1310
Point Instruction Pointer to Saved Memory Page
1312
Process Saved Memory Page
1314

Figure 13